

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

|   |   |                      |
|---|---|----------------------|
| Inquiry Concerning Deployment of            | ) |                      |
| Advanced Telecommunications                 | ) |                      |
| Capability to All Americans in a Reasonable | ) |                      |
| And Timely Fashion, and Possible Steps      | ) | CC Docket No. 98-146 |
| To Accelerate Such Deployment Pursuant      | ) |                      |
| To Section 706 of the Telecommunications    | ) |                      |
| Act of 1996                                 | ) |                      |

**COMMENTS OF AT&T CORP.**

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**COMMENTS OF AT&T CORP.**

AT&T Corp. (“AT&T”), by its attorneys, respectfully submits these comments in response to the Commission’s *Third Notice of Inquiry* on advanced telecommunications deployment.<sup>1/</sup>

**INTRODUCTION AND SUMMARY**

In its *First 706 Report*, the Commission formulated a policy of “vigilant restraint,” based on its conclusion that although advanced telecommunications capability was not yet available to all Americans, the deployment of this capability was proceeding “in a reasonable and timely manner.”<sup>2/</sup> The Commission emphasized that its role was “not to pick winners and losers, or to

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<sup>1/</sup> *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Third Notice of Inquiry*, CC Docket No. 98-146, FCC 01-223 (rel. Aug. 10, 2001) (“*Third NOI*”).

<sup>2/</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Report*, 14 FCC Rcd 2398 at ¶¶ 5, 18 (1999) (“*First 706 Report*”).

select the best technology to meet consumer demand,” but instead to “rely as much as possible on free markets and private enterprise.”<sup>3/</sup> In the *Second 706 Report*, the Commission reaffirmed that “competition, not regulation, holds the key to stimulating further deployment of advanced telecommunications capability.”<sup>4/</sup> As W. Kenneth Ferree, Chief of the Cable Services Bureau, has explained, the Commission’s “restrained approach thus far has been successful and ... the rapid deployment we already are seeing of broadband capacity, in part, has resulted from this approach.”<sup>5/</sup>

As the *Third NOI* documents, the deployment of advanced telecommunications capability has accelerated since the *Second 706 Report* was released,<sup>6/</sup> and the evidence suggests that most U.S. homes and businesses will have a choice among providers of advanced services in the near future. Almost one quarter of U.S. online households, 16 million of them, access the Internet using some form of high-speed service, and nearly 45 percent of all current high-speed subscribers signed up during 2001.<sup>7/</sup> AT&T, using multiple technologies, is among those at the forefront of deploying advanced capabilities, but many other firms are competing vigorously to bring advanced capabilities to all Americans. This rapid deployment of advanced capabilities confirms that the marketplace is working to bring advanced capabilities to Americans. However, the Commission can and should foster the competitive availability of advanced capabilities

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<sup>3/</sup> *Id.* at ¶ 5.

<sup>4/</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Second 706 Report*, 15 FCC Rcd 20913 at ¶ 246 (2000) (“*Second 706 Report*”).

<sup>5/</sup> *Changing the Tone and Charting the Future of Regulation in a Broadband World*, remarks of W. Kenneth Ferree, Chief, Cable Services Bureau, to the 21<sup>st</sup> Annual Conference of the National Association of Telecommunications Officials and Advisors at 7 (Sept. 9, 2001).

<sup>6/</sup> *Third NOI* at ¶¶ 12-18.

through vigorous enforcement of the market-opening requirements of the Telecommunications Act of 1996.

## DISCUSSION

### I. **ADVANCED TELECOMMUNICATIONS CAPABILITY IS BEING DEPLOYED TO “ALL AMERICANS”**

#### A. **Many Segments of the Communications Industry Are Making Significant Investments in Advanced Telecommunications Capabilities.**

The same four technologies that the FCC focused upon in its previous reports continue to provide service to the vast majority of high-speed service subscribers -- cable,<sup>8/</sup> digital subscriber line (“DSL”), satellite, and fixed wireless. Other technologies have also entered the broadband arena and are poised to become strong competitors in the near future. AT&T will discuss each of these technologies in turn.

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<sup>7/</sup> See “*What Economic Slowdown? U.S. Consumer Demand for Internet Access Breaks Records*,” focus report released by Gartner Dataquest at 7 (Aug. 22, 2001).

<sup>8/</sup> Broadband cable facilities should be included within the Commission’s analysis of “advanced telecommunications capability” because they are capable of delivering the advanced services demanded by consumers today. Cable operators, however, do not offer “advanced telecommunications services.” Cf. *First 706 Report* at ¶ 24 (explaining that some facilities and services, like broadband provided over cable, may not be “telecommunications” within the precise terms of the Communications Act but may as a practical matter be competitive with advanced telecommunications capability). “Telecommunications” is defined as the “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information sent and received,” 47 U.S.C. § 153(43), and a “telecommunications service” is the offering of telecommunications for a fee directly to the public. 47 U.S.C. § 153(46). A “cable service,” by contrast, is “the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and subscriber interaction, if any, which is required for the selection or use of such . . . other programming service.” 47 U.S.C. § 522(6). The term “other programming service” is defined broadly as “information that a cable operator makes available to all subscribers generally.” 47 U.S.C. § 522(14). In amending the definition of “cable service” in 1996, Congress specifically contemplated the “evolution of cable to include interactive services such as . . . information services made available to subscribers . . . and enhanced services.” H.R. Rep. 104-458 (1996), at 169. Cable modem services fall squarely within the amended definition of “cable service.” They provide subscribers with “information” that is “available to all subscribers generally” and that those subscribers may “select[]” or “use” through “interaction” between the subscribers’ and the cable operator’s equipment.

**High-Speed Cable Facilities.** As of August 2001, there were approximately 5.5 million subscribers to high-speed cable modem services in the United States.<sup>9/</sup> Cable modem service was available to approximately 60 million homes in the United States, almost 62 percent of all cable homes passed.<sup>10/</sup> Over the last five years, cable operators have spent over \$50 billion, including \$12.4 billion in 2000 alone, upgrading their facilities to provide new services to their customers.

AT&T is currently upgrading its cable plant in order to provide its subscribers with a seamless offering that includes high-speed connectivity, Internet access, and content. AT&T estimates that approximately 14 million homes passed by its cable system have been upgraded and are capable of receiving high-speed services like cable modem service. As of the end of second quarter 2001, there were approximately 1.3 million subscribers to AT&T's high-speed cable service. AT&T added approximately 131,000 new subscribers during second quarter 2001, an increase of 23 percent over the approximately 106,000 subscribers added during second quarter 2000. AT&T Broadband plans to spend \$3.6 billion on capital expenditures in 2001, with the majority focused on providing advanced services and plant upgrades. Since 1996, AT&T estimates that investments to upgrade its cable networks have exceeded \$4 billion. In the first quarter of 2001 alone, AT&T spent \$871 million on improvements to its cable network.

Other cable operators also continue to upgrade their networks and invest millions in order to provide their subscribers with high-speed services. As of the end of the second quarter, Comcast had 675,600 cable modem subscribers.<sup>11/</sup> Comcast has stated that it expects that

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<sup>9/</sup> National Cable and Telecommunications Association Industry Statistics, visited Sept. 21, 2001 <[http://www.ncta.com/industry\\_overview/indStat.cfm?indOverviewID=2](http://www.ncta.com/industry_overview/indStat.cfm?indOverviewID=2)>.

<sup>10/</sup> *Id.*

<sup>11/</sup> See *Residential Broadband Customer Count Tops 10 Million*, Cable Datacom News (September 2001) <<http://www.cabledatcomnews.com/sep01/sep01-1.html>>.

number to increase even more rapidly in the third and fourth quarters and it has raised its year-end forecast for Internet subscribers to 950,000.<sup>12/</sup> Cox ended the second quarter with approximately 668,000 cable modem subscribers and AOL Time Warner had approximately 1,409,000 cable modem subscribers.<sup>13/</sup>

**DSL.** As the Commission has recognized previously, the massive investment by cable companies has spurred incumbent LECs to deploy broadband facilities.<sup>14/</sup> While cable modem services have taken an early lead in the race to provide high-speed access to the home, DSL deployment continues to grow. The prospect of full fledged cable modem service has jolted ILECs into aggressive deployment of their own advanced capabilities and as of year end 2000 there were approximately 38 million “homes passed” by DSL.<sup>15/</sup>

Verizon ended the first quarter with more than 720,000 DSL lines in service nationwide, about five times more than it had in service a year ago.<sup>16/</sup> Approximately 30 million of Verizon’s access lines can now receive the service, which is about 47 percent of Verizon’s customer base.<sup>17/</sup> SBC now has 954,000 DSL customers, approximately 200,000 more than last year.<sup>18/</sup> SBC’s DSL service is currently available to more than 21 million homes and businesses and is projected to be available to more than 29 million customer locations once its “Project

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<sup>12/</sup> *Id.*

<sup>13/</sup> *Id.*

<sup>14/</sup> *First 706 Report* at ¶ 42.

<sup>15/</sup> *The Marquis de Broadbandbury - Part Deux*, Morgan Stanley Dean Witter Industry Overview Report at 46 (July 3, 2001).

<sup>16/</sup> *Verizon Deploys Fiber Optics, Network Systems To Expand, Improve Service in Capital District*, Verizon news release (June 4, 2001) <<http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=55628>>. See also Richard Williamson, *Broadband Still Blooming*, Interactive Week (May 8, 2001) <<http://www.zdnet.com/zdnn/stories/news/0,4586,2716241,00.html>>.

<sup>17/</sup> *Id.*

<sup>18/</sup> *Id.*

Pronto” is complete, which would be 80 percent of SBC’s customer base.<sup>19/</sup> Qwest’s DSL customer base has grown 105 percent since the second quarter of last year and it now has over 360,000 DSL subscribers.<sup>20/</sup> And BellSouth ended the first quarter of 2001 with 303,000 DSL customers.<sup>21/</sup> According to BellSouth, DSL is available to more than 10 million telephone lines in its markets, and it expects that number to grow to more than 15 million by the end of the year, which will represent more than 70 percent of the households in its markets.<sup>22/</sup>

Competitive LECs are also continuing to invest in DSL technology. For example, AT&T is using DSL to expand its broadband facilities beyond its cable footprint. AT&T paid \$135 million in cash to acquire the DSL assets of the now-defunct NorthPoint Communications. These assets will be integrated with AT&T’s existing network and will allow AT&T to reach more of its customers with a broad mix of services, including broadband, local, and long distance. AOL Time Warner apparently is also planning to use DSL to expand its broadband footprint -- AOL Time Warner has signed a multiyear agreement that makes Qwest Communications its primary provider of digital subscriber line access and network services.<sup>23/</sup>

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<sup>19/</sup> *Survey Says: DSL Internet Users Addicted to Broadband*, SBC news release (April 3, 2001) <[http://www.sbc.com/News\\_Center/1,3950,31,00.html?query=20010403-1](http://www.sbc.com/News_Center/1,3950,31,00.html?query=20010403-1)>.

<sup>20/</sup> *Qwest Communications Reports Strong Second Quarter 2001 Results Driven By Growth In Commercial, Internet And Data Revenue*, Qwest news release (July 24, 2001) <[http://www.qwest.com/about/media/pressroom/1,1720,713\\_archive,00.html](http://www.qwest.com/about/media/pressroom/1,1720,713_archive,00.html)>.

<sup>21/</sup> *BellSouth Reports First Quarter Earnings*, BellSouth news release (April 19, 2001) <<http://bellsouthcorp.com/proactive/newsroom/release.vtml?id=35863>>.

<sup>22/</sup> *BellSouth Reaches Out to DSL Customers*, BellSouth news release (April 2, 2001) <<http://bellsouthcorp.com/proactive/newsroom/release.vtml?id=35704>>.

<sup>23/</sup> Tony Kontzer, *AOL Time Warner Beefs Up Broadband Capabilities*, WallStreetandTech.com (July 26, 2001) <<http://www.wallstreetandtech.com/story/itWire/IWK20010726S0026>>.



Sprint also is expanding its DSL footprint and now offers its high-speed Business DSL service in 11 additional cities, for a total of 40 markets.<sup>24/</sup>

**Satellite.** Satellite providers also continue to roll out new broadband services. High-speed satellite services currently have the fastest rate of growth in subscribership -- 132 percent.<sup>25/</sup> Hughes Network Systems recently announced that it will launch DirecWay, a two-way high-speed satellite Internet service, later this year.<sup>26/</sup> According to Hughes, DirecWay will provide service at speeds that are comparable to those provided by cable modem services and will be marketed to homes and small businesses that currently cannot receive service from DSL or cable modem providers.<sup>27/</sup> The DirecWay service is an improvement over Hughes' earlier two-way satellite Internet service, which offered high-speed downloads but relied on a slower dial-up return path.<sup>28/</sup> Teledesic LLC is moving forward with its plans to use its satellite network to provide worldwide access to advanced telecommunications services such as computer networking, broadband Internet access, and interactive multimedia.<sup>29/</sup>

**Wireless.** While the growth of fixed wireless has lagged compared to that of other broadband technologies, industry analysts believe that it has the potential to "bridge the

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<sup>24/</sup> *Sprint's DSL Push Continues*, NetworkWorldFusion (August 29, 2001) <<http://www.nwfusion.com/newsletters/isp/2001/00960548.html>>.

<sup>25/</sup> See "What Economic Slowdown? U.S. Consumer Demand for Internet Access Breaks Records," focus report released by Gartner Dataquest (Aug. 22, 2001).

<sup>26/</sup> Sam Ames, *DirecTV to Offer Broadband Service*, CNET News (August 2, 2001) <<http://news.cnet.com/news/0-1004-200-6765378.html>>.

<sup>27/</sup> Larry Barrett, *New High Speed Net Services From Space*, CNET News (June 22, 2001) <<http://news.cnet.com/news/0-1004-200-6354160.html>>.

<sup>28/</sup> *Id.*

<sup>29/</sup> Kim Sunderland, *Wake-Up Call: Rural LECs Face Growing Local Competition*, XCHANGE (April 1, 2001) <<http://www.xchangemag.com/articles/141sec6.html>>.

broadband gap” and compete with other more established broadband competitors.<sup>30/</sup> Analysts predict that MMDS providers — who currently serve 4.8 percent of high-speed subscribers — will double their penetration by mid-2002.<sup>31/</sup> Currently, three companies hold approximately 80 percent of the U.S. MMDS licenses -- Sprint and WorldCom have about thirty-five percent of the licenses each, while Nucentrix Broadband Networks holds ten percent.<sup>32/</sup> XO Communications, which holds LMDS licenses, is another one of North America’s largest holders of fixed broadband wireless spectrum with licenses covering 95 percent of the population of the 30 largest U.S. cities.<sup>33/</sup>

**Public Utilities.** A new group of broadband competitors is public utilities, who are providing high-speed Internet access and other services over power lines or fiber optics in their rights-of-way. For example, the Grant County Public Utility District, a local power company serving 40,000 homes in a rural area between Spokane and Seattle, Washington, has installed over 7,000 miles of fiber optics in order to provide access to high-speed telecommunications to utility customers, and plans to install an additional 40,000 miles within the next five years.<sup>34/</sup>

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<sup>30/</sup> *MMDS Fixed Wireless Set to Become a Piece of the Broadband Puzzle*, E-Networks & Broadband Access Report by the Yankee Group at 2 (July 2001).

<sup>31/</sup> See “*What Economic Slowdown? U.S. Consumer Demand for Internet Access Breaks Records*,” focus report released by Gartner Dataquest at 1, 8 (Aug. 22, 2001).

<sup>32/</sup> *MMDS Fixed Wireless Set to Become a Piece of the Broadband Puzzle*, E-Networks & Broadband Access Report by the Yankee Group at 10 (July 2001).

<sup>33/</sup> *XO Communications Announces Strong Revenue Growth and EBIDTA Improvement in the Second Quarter*, XO news release (July 25, 2001) <<http://www.xo.com/news/81.html>>.

<sup>34/</sup> See *Grant County Zips Into the 21<sup>st</sup> Century*, Grant County Public Utility District news release (March 20, 2001) <[http://www.gcpud.org/zipp/press\\_3\\_20\\_01.htm](http://www.gcpud.org/zipp/press_3_20_01.htm)>. See also Brian Ploskina and Richard Williamson, *New Players Pull Fiber Into Neighborhoods*, Interactive Week (April 2, 2001) <<http://www.zdnet.com/zdnn/stories/news/0,4586,2703654,00.html>> (describing fiber optical deployment by Grant County Public Utility District and others).

**B. These Extensive Investments in Advanced Capabilities Will Reach All Segments of the American Public.**

In the *Second 706 Report*, the Commission expressed its concern that market forces alone might be insufficient to ensure that all Americans receive timely access to advanced services.<sup>35/</sup> In the *Third NOI*, however, the Commission noted that the Form 477 data show “significant shrinkage in the gap between subscription to advanced services in densely and sparsely populated zip codes, in high-income and low-income zip codes, and in small towns and tribal territories on the one hand and the nation as a whole on the other.”<sup>36/</sup> AT&T believes that the Form 477 data correctly demonstrate that deployment to these vulnerable communities is increasing, but some may need special attention to overcome economic, geographic, or other boundaries.

Potential and existing AT&T customers reside in every type of neighborhood -- including rural areas, inner cities, and suburbs -- and AT&T has an economic incentive to market and deliver its broadband services to all of these areas. AT&T believes that all Americans, wherever they reside and whatever their situation, should have a reasonable opportunity to access broadband services, and AT&T also believes that market forces are working rapidly and effectively to make that happen. While no single company can guarantee this result, AT&T is doing its part, as demonstrated below, to bring broadband services to the people and communities it serves.

**Residential Areas.** In the *Second 706 Report*, the Commission found that there had been appreciable growth in each of the technologies that are being used to deliver high-speed services

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<sup>35/</sup> *Second 706 Report* at ¶ 205.

<sup>36/</sup> *Third NOI* at ¶ 22.

to residences and small businesses.<sup>37/</sup> The data the Commission has compiled from providers' Form 477s confirm this trend. As the Commission explains in the *Third NOI*, there has been a substantial increase in residential and small business advanced services lines during each of the last six-month periods.<sup>38/</sup> All available evidence indicates that deployment of advanced telecommunications capability to residential customers will continue to increase in the future.

One factor that has been spurring residential subscribership to broadband services is the recent availability of these services from retail outlets. Cable modem services, for instance, are now available from retail stores. Among these, AT&T Broadband's high-speed data service and cable modems currently can be purchased at 115 Best Buy stores, 75 Gateway stores, and 120 Circuit City stores. Increasing numbers of subscribers are taking advantage of these channels to subscribe to AT&T Broadband's high-speed service -- year-to-date sales through these retail outlets have already exceeded sales for all of 2000. Likewise, DirecTV, which acquired the assets of DSL provider Telocity in April, has announced an agreement with Circuit City to market the DirecTV DSL service in Circuit City's retail stores. And EarthLink offers a "do-it-yourself" kit that allows customers to install DSL themselves, as long as the customer is in an area that permits line sharing.<sup>39/</sup> Allowing consumers to purchase high-speed service equipment in retail stores and install it themselves saves them the costs of installation and has great potential to increase penetration.

**Inner Cities.** AT&T's commitment to bringing advanced services to consumers in inner cities is equally strong. AT&T has pledged that service will be made available without regard to race or income level. AT&T has upgraded entire metropolitan areas, including the less affluent

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<sup>37/</sup> *Second 706 Report* at ¶ 71.

<sup>38/</sup> *Third NOI* at ¶ 12.

sections of cities, and does not selectively upgrade only more affluent areas. For example, AT&T has upgraded systems in St. Louis, Pittsburgh, Chicago, and Dallas to provide advanced services capability, and in those areas, it upgraded less affluent communities before or at the same time that it upgraded more affluent communities. While AT&T agrees with Commissioner Powell that wealthier customers are often earlier adopters of innovative products,<sup>40/</sup> AT&T does not have dual standards of service for affluent versus disadvantaged neighborhoods.

AT&T has taken additional steps to ensure that inner city customers have access to advanced services. The great majority of the projects funded through the AT&T Foundation Civic & Community Service Program involve telecommunications and Internet services. For example, AT&T is helping the Dallas Urban League expand its facility and services to provide increased information technology-driven employment opportunities for its inner city constituents. AT&T also has provided grants to the National Urban League and the NAACP to establish Internet-based "Tech Centers" for low income neighborhoods. Other AT&T grants have gone to the Los Angeles County Office of Education's Technology for Learning Initiative to establish twenty-five neighborhood-based technology centers, to the Puente Learning Center in South Central Los Angeles to provide free computer-based education programs to children, youth, and adults and encourage other community agencies to do the same, and to help settlement houses in New York City that serve as centers where technology resources can be accessed, shared and used by settlement staff, community residents and program participants. Through cable system upgrades, grants, and other programs, AT&T is doing its part to make broadband accessible to inner city Americans.

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<sup>39/</sup> See *Is Budget Broadband Really a Bargain?*, CNET News (Oct. 10, 2000) <<http://www.cnet.com/internet/0-3762-8-2923549-1.html>>.

<sup>40/</sup> See Christopher Stern, *FCC's Powell Discusses TV, 'Digital Divide,'* Washington Post (Feb. 6, 2001).

**Deployment to Persons With Disabilities.** The Commission also has asked for information about access to advanced services by persons with disabilities.<sup>41/</sup> Cable modem subscribers use the same computers whether they use narrowband or broadband connections, which means that any limitations on access to Internet services at slower speeds carry over to broadband, but are not unique to broadband.<sup>42/</sup> AT&T is involved in efforts to remove such limitations through its participation in the World Wide Web consortium, which is working to make websites and content more accessible to persons with disabilities.<sup>43/</sup> AT&T has also used a software program called “Bobby” to analyze AT&T web pages for their accessibility and ensure that web sites are browser neutral and accessible to people with disabilities. And AT&T Labs recently announced its first commercial product, the AT&T Labs Natural Voices™ Text-to-Speech system, which has a text-to-speech engine that turns written words into natural-sounding speech.<sup>44/</sup> Through such efforts, AT&T is working to ensure that all Americans, including those with disabilities, have access to all AT&T’s products and services.

**Deployment to Elementary and Secondary Schools.** Schools across America are using a wide variety of broadband technologies to connect to the Internet, including unlicensed wireless, high-speed cable modem service, and satellite service.<sup>45/</sup> AT&T recognizes the importance of such public connections, which may be the principal way some lower income families access the Internet, and AT&T is working to provide high-speed cable modem service

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<sup>41/</sup> *Third NOI* at ¶ 21.

<sup>42/</sup> See, e.g., Paul Festa, *W3C Drafts Web Access For Disabled*, ZDNet News (Sept. 17, 2001) <<http://www.zdnet.com/zdnn/stories/news/0,4586,5097032,00.html>> (describing problems with computer keyboards and browsers and other user interfaces).

<sup>43/</sup> *Id.*

<sup>44/</sup> *AT&T :abs Launches Natural Voices*, AT&T news release (July 31, 2001) <<http://www.att.com/press/item/0,1354,3925,00.html>>.

those schools and libraries in its service areas currently without such access. AT&T offers free cable modems and service to every school and library in its cable franchise areas and, through its support for Cable in the Classroom, provides a free cable connection and over 540 hours per month of commercial-free educational programming to schools.<sup>46/</sup> AT&T has invested a quarter billion dollars to provide high-speed cable modem services for America's schools, which currently reach more than 10.7 million children in 18,414 schools nationwide.

## **II. THE DEPLOYMENT OF ADVANCED TELECOMMUNICATIONS CAPABILITY IS OCCURRING ON A REASONABLE AND TIMELY BASIS**

Using the same evaluative criteria that the Commission used to prepare its *Second 706 Report*,<sup>47/</sup> it is clear that the Commission's efforts to encourage the deployment of advanced services are succeeding. Subscription is increasing, even in the current economic downturn; all segments of the industry -- cable operators, ILECs, CLECs, wireless providers, and satellite operators -- are investing in advanced telecommunications capabilities and rolling out new facilities and services; and healthy competition is developing between a variety of providers using a multitude of technologies.

**Subscribership.** In its comments responding to the Commission's *Second NOI*, AT&T cautioned that evaluating the deployment of advanced telecommunications capability based purely on static metrics such as homes or miles passed or customers was inappropriate given the nascency of the advanced services market, and could prove detrimental to the development of

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<sup>45/</sup> See *Schools Deploy Big Pipes as Internet Usage Skyrockets*, ComputerWorld (August 31, 2001) <[http://www.computerworld.com/storyba/0,4125,NAV47\\_STO63461,00.html](http://www.computerworld.com/storyba/0,4125,NAV47_STO63461,00.html)>.

<sup>46/</sup> See *AT&T Cable in Education Resources* (visited Sept. 20, 2001) <<http://www.att.com/cableineducation/service.html>>.

<sup>47/</sup> See *Second 706 Report* at ¶ 1; *Third NOI* at ¶ 19.

innovative advanced telecommunications capabilities and options.<sup>48/</sup> In the *Second 706 Report*, the Commission determined that the deployment of advanced telecommunications to all Americans was reasonable and timely at that time,<sup>49/</sup> in part because it found that there had been a “substantial increase in residential customers of advanced services” since it issued its previous report.<sup>50/</sup>

The Commission should reach the same conclusion this year because the overall number of subscribers continues to grow, and grow rapidly.<sup>51/</sup> While the rate of growth of broadband subscribership may have slowed in recent months,<sup>52/</sup> that result is not unexpected given the slowdown in the American economy in general. Even as overall U.S. economic growth slows, however, a Gartner Dataquest report found that 94 percent of homes with high-speed Internet access were likely to continue to subscribe to the service, and 20 percent of homes with dial-up service expect to upgrade to a faster service by mid-2002.<sup>53/</sup> The report concludes that “overall Internet access as well as broadband access have not been affected by negative market news.”<sup>54/</sup>

Moreover, any slowing of demand most likely reflects a shift in consumer spending priorities rather than a lack of advanced telecommunications capacity. As demonstrated below, investment in the infrastructure to support advanced services continues to be significant, and the

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<sup>48/</sup> Comments of AT&T Corp., CC Docket No. 98-146 (filed March 20, 2000).

<sup>49/</sup> *Second 706 Report* at ¶¶ 203-04.

<sup>50/</sup> *Second 706 Report* at ¶¶ 69-70.

<sup>51/</sup> See *Residential Broadband Customer Count Tops 10 Million*, Cable Datacom News (September 2001) <<http://www.cabledatcomnews.com/sep01/sep01-1.html>>.

<sup>52/</sup> See, e.g., *Broadband Market Growth Slows*, Washington Post (August 28, 2001).

<sup>53/</sup> See *U.S Households Actively Using the Web Reached 65 Million*, Business Today.com (August 29, 2001) <<http://www.businesstoday.com/business/technology/web08292001.htm>> (describing *What Economic Slowdown? U.S. Consumer Demand for Internet Access Breaks Records*, focus report released by Gartner Dataquest (Aug. 22, 2001)).

<sup>54/</sup> *Id.* at 11.



supply of advanced telecommunications capability currently vastly exceeds demand. The best way to spur demand for advanced services is the development of a “killer app” -- a compelling broadband application that rapidly drives up demand. Indeed, Commissioner Abernathy recently observed that “[t]here is no great crisis in broadband deployment.... You are really looking for the killer applications to spur take rates by consumers,” while Cable Bureau Chief Ferree voiced similar conclusions.<sup>55/</sup> Potential killer apps include Napster’s new subscription-based model, telecommuting, and movies on demand.<sup>56/</sup> But stimulating demand is a task for which the government is particularly unsuited; it should be left to the competitive market.

**Investment.** As the Commission is well aware, broadband facilities have been deployed at staggering rates in recent years. And these positive investment trends are continuing, despite the recent economic downturn. As demonstrated above in Section I, cable operators, ILECs, CLECs, wireless providers, and satellite operators continue to invest in advanced telecommunications capabilities and roll out new facilities and services. AT&T plans to spend \$3.6 billion on capital expenditures in 2001, the majority of which will be used for advanced services and plant upgrades.

Obviously, the last two quarters have been difficult ones for the telecommunications and

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<sup>55/</sup> See Peter Henderson, *AT&T Says Broadband Services Still a Tough Sell*, Reuters (Aug. 21, 2001) (citing FCC Commissioner Kathleen Abernathy); *Changing the Tone and Charting the Future of Regulation in a Broadband World*, remarks of W. Kenneth Ferree, Chief, Cable Services Bureau, to the 21<sup>st</sup> Annual Conference of the National Association of Telecommunications Officials and Advisors at 6 (Sept. 9, 2001) (noting that “there are very few true broadband applications driving subscriber acceptance and, as a result, the dial-up connection has become the *de facto* standard”).

<sup>56/</sup> See, e.g., *Disney, Fox Seen Making Video on Demand Move*, Reuters (Aug. 28, 2001) <<http://www.zdnet.com/zdnn/stories/news/0,4586,2808503,00.html>> (discussing expected announcement of video-on-demand initiative); *Metro-Goldwyn-Mayer Studios, Paramount Pictures, Sony Pictures Entertainment, Universal Studios, and Warner Bros. Announce On-Demand Movie Distribution Service*, Sony press release (August 16, 2001) <[http://www9.station.sony.com/sca/press/08162001\\_pf.html](http://www9.station.sony.com/sca/press/08162001_pf.html)>.

cable industries. Numerous companies that attempted to compete with incumbent LECs, including NorthPoint, Rhythms NetConnections, Covad, Winstar, e.spire, Vectris, Jato, Prism, NETtel and many others, have declared bankruptcy or shut down operations. For those that continue to operate, stock prices have plunged and the capital market has virtually dried up. While telecommunications companies captured an average of two billion dollars per month in initial public offerings over the last two years, they raised only \$76 million in IPOs in March of this year, leading numerous companies to withdraw their IPO plans.<sup>57/</sup> Some of this downturn is attributable to the collapse of the Internet economy, but it is also a result of the ILECs' refusal to comply with the directives of the Telecommunications Act of 1996. While the ILECs have conveniently dismissed the collapse of the CLEC industry as the result of "bad business plans," such simplistic statements clearly do not explain the failure of CLECs whose strategies, size, financial background, and geographic location ran the gamut.

If these failed competitors did make one common mistake in their business plans, it was relying on the promise of the 1996 Act that they would have a fair chance to compete with the established incumbents. Instead, the ILECs have resisted and challenged nearly every attempt to implement the pro-competitive provisions of the Act, and their strategy of resistance, delay, and litigation has enabled them to maintain their dominance of the local telephone market, while their competitors are forced to scale back service plans or go out of business entirely.<sup>58/</sup>

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<sup>57/</sup> *Telecom Meltdown*, Business Week (April 23, 2001).

<sup>58/</sup> See Stephen Pizzo, *Why Is Broadband So Narrow?*, Forbes ASAP (Sept. 10, 2001) ("The reason that CLECs (like NorthPoint) have fallen on hard times is that the RBOCs were very successful using legal tactics to delay full implementation of the 1996 Telecommunications Act," says Paul Kellett, senior director of research for telecommunications consulting firm Pioneer Consulting. "The RBOCs won through delay. The CLECs are going out of business because they don't have the cash flow."").

In the face of this intransigence, the Commission can and should take decisive steps to enforce the market-opening requirements of the 1996 Act. The availability of a forum for the rapid resolution of complaints against the ILECs and meaningful penalties for violations of these requirements can help foster the competitive deployment of advanced telecommunications capacity.<sup>59/</sup> As Chairman Powell has recognized, “A vibrant competitive local exchange carrier industry is central to Congress’s vision for opening local markets to competition. To this end, it is imperative that the Commission and State commissions, as partners in the enforcement scheme of the 1996 Act, be vigilant in ensuring that incumbent local exchange carriers (‘ILECs’) meet their obligations under the statute.”<sup>60/</sup>

**Trends in Available Technologies.** Despite the recent financial difficulties of some advanced services providers, a wide variety of technologies are currently being used to provide high-speed services and there are still multiple providers of each. Future developments will improve these existing technologies and also provide new means of delivering broadband services to all Americans. For example, a new cable modem standard that is scheduled for final approval later this year will improve the speed of future cable modem services, especially for upstream transmissions.<sup>61/</sup> SBC has announced that it will use a new technology -- broadband passive optical networking or “BPON” -- to provide direct fiber service to smaller businesses and eventually to residences.<sup>62/</sup> BPON, which combines passive optical networking and wave division multiplexing, requires no intermediary electronics, and therefore no power source

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<sup>59/</sup> *Third NOI* at ¶¶ 25-26.

<sup>60/</sup> See Letter from Chairman Michael K. Powell, Federal Communications Commission, to Leaders of the Senate and House Commerce and Appropriations Committees (May 4, 2001).

<sup>61/</sup> Corey Grice, *New Cable Standard May Triple Speeds*, CNET News.com (Sept. 6, 2001) <[http://cnet.com/news/0-1004-200-7079103.html?tag=cd\\_pr](http://cnet.com/news/0-1004-200-7079103.html?tag=cd_pr)> (announcing certification of DOCSIS 2.0).

<sup>62/</sup> *SBC Begins New Phase of Project Pronto*, SBC press release (May 9, 2001).

outside the central office, and enables the shared use of fiber for most of the distance between a central office and the customer.<sup>63/</sup> GoDigital Networks now offers a DSL extension product that can be used to serve subscribers who are located more than 12,000 feet from a central office or who are blocked by a digital loop carrier that cannot be retrofitted with a mini-RAM (remote access multiplexer) or remote DSLAM.<sup>64/</sup> The company claims that the per-line cost of its system is less than ten percent of the comparable cost of serving remote customers in sparsely populated areas using next-generation digital loop carriers.<sup>65/</sup>

An example of a brand new broadband technology is Helios, an unmanned aircraft that is intended to function as a telecommunications tower in the sky.<sup>66/</sup> SkyTower, the developer of Helios, claims that it operates like a conventional communications satellite but is far cheaper and can provide data rates of 1.5 Mbps to 125 Mbps.<sup>67/</sup> Another new broadband competitor, Terabeam, uses lasers to beam data through the air, from one window to another.<sup>68/</sup> Terabeam has placed a dozen hubs in downtown Seattle buildings, and provides service with speeds as high as 1,000 megabits per second.<sup>69/</sup>

## CONCLUSION

As the foregoing demonstrates, deployment of advanced telecommunications capability to all Americans is proceeding in a reasonable and timely fashion. The Commission's policy of

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<sup>63/</sup> *Id.*

<sup>64/</sup> Margot Suydam, *Vendors Aim To Overcome DSL* (June 6, 2001) <<http://www.e-insite.net/commvergemag/index.asp?layout=article&articleId=CA149538>>.

<sup>65/</sup> *Id.*

<sup>66/</sup> Max Smetannikov, *It's a Plane, It's Broadband*, Interactive Week (August 13, 2001) <<http://www.zdnet.com/zdnn/stories/news/0,4586,2803563,00.html>>.

<sup>67/</sup> *Id.*

<sup>68/</sup> James Hattori, *Terabeam Aims To Solve Last Mile' Data Jam*, CNNdotCOM (February 24, 2001) <<http://www.cnn.com/2001/TECH/science/02/24/cover.terabeam/>>.

“vigilant restraint” has ensured an environment where competitors are willing to risk billions of dollars to bring the benefits of broadband capability to market. The number of subscribers to broadband services continues to grow rapidly and investment continues to be robust, even in the midst of the current economic slowdown. The Commission should promote the availability of advanced capabilities through vigorous enforcement of the market-opening requirements of the Telecommunications Act of 1996, but need not – and should not – take other regulatory action at this time.

Respectfully submitted,  
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<sup>69/</sup> *Id.*